WHAT IS CLAIMED IS:

1. A flexible suspension circuit comprising:

a flexible insulated base;

a plurality of transducer leads printed on the flexible insulated base to electrically interface transducer elements of a head to drive circuitry; and

a flexure element printed on the flexible insulated base having an energizable length dimension differential to provide a flexure force.

2. The flexible suspension circuit of claim 1 and further comprising flexure leads fabricated on the flexible insulated base and conductivity coupled to the flexure element to supply a voltage potential across opposed ends of the flexure element.

3. The flexible suspension circuit of claim 1 wherein the flexure element is a shape memory material.

4. The flexible suspension circuit of claim 1 wherein the flexible insulated base is formed of a polyimide material.

5. The flexible suspension circuit of claim 1 including a plurality of flexure elements at spaced positions on the flexible insulated base having an energizable length dimension differential.

6. A head suspension assembly comprising:

a suspension assembly including a cantilevered suspension arm having an elongated cantilevered length and the suspension arm including a bending portion having a reduced flexure strength between a proximal end and a distal end of the bending portion and including a stepped flexure strength increase from the bending portion to a distal portion of the suspension arm extending from the distal end of the bending portion;

a head including a slider coupled to the cantilevered suspension arm and adapted to supply a preload force to the head to bias the head toward a disc; and

a shape memory flexure element having an energizable length differential having opposed first and second ends and an elongated length and the elongated length of the shape memory flexure element extending across the bending portion with the first end of the flexure element coupled to the suspension arm proximal of the bending portion and the second end of the flexure element coupled to the suspension arm distal of the bending portion.

7. The head suspension assembly of claim 6 wherein the suspension arm supplies a static preload force to the head and the shape memory flexure element is energized to release the static preload force for operation.

8. The head suspension assembly of claim 6 wherein the shape memory flexure element is energized to provide in-situs adjustment of one of fly height of the head or the preload force to the head.

9. The head suspension assembly of claim 6 wherein the shape memory flexure element is printed on a flexible suspension circuit comprising a flexible insulated base having transducer leads printed on the flexible insulated base to electrically interface transducer elements of the head to drive circuitry.

10. The head suspension assembly of claim 6 assembled in a disc drive and the disc drive includes a "spin-up" control mode and a "read/write" control mode wherein in the "spin-up" control mode, the shape memory flexure element is energized to release a static preload force to reduce stiction during "spin-up".

11. The head suspension assembly of claim 10 wherein the shape memory flexure element is energized to adjust the preload force to the head or fly height of the head in the read/write control mode.

12. The suspension assembly of claim 6 including a plurality of shape memory flexure elements having opposed first and second ends coupled to the suspension arm proximal and distal of the bending portion.

13. The head suspension of claim 6 wherein the suspension arm includes multiple spaced bending portions having proximal and distal ends and having a reduced flexure strength between the proximal and distal ends of the bending portions and the multiple bending portions including multiple stepped flexure strength increases from the multiple bending portions to portions of the suspension arm distally spaced from the bending portions and at least one of the multiple spaced bending portions includes the shape memory flexure element extending thereacross.

14. The head suspension of claim 13 including a plurality of shape memory flexure elements including a first shape memory flexure element coupled to one of the multiple spaced bending portions and a second shape memory flexure element coupled to another of the multiple spaced bending portions.

15. A head suspension assembly comprising:

a suspension assembly including a cantilevered suspension arm having an elongated cantilevered length, the suspension arm including a first bending portion having a reduced flexure strength and a second bending portion having a reduced flexure strength spaced from the first bending portion and the first and second bending portions including a flexure step increase from the reduced flexure strength of the first or second bending portions and a portion of the suspension arm (distally spaced) from the first or second bending portions;

a head including a slider coupled to the cantilevered suspension arm and adapted to supply a preload force to the head to bias the head toward a disc; and

a shape memory flexure element having an energizable length differential having opposed first and second ends and an elongated length and the elongated length of the shape memory flexure element extending across one of said first or second bending portions with the first end of the flexure element coupled to the suspension arm (proximal) to the one of the first or second bending portions and the second end of the flexure element coupled to the suspension arm distal of the one of the first or second bending portions.

16. The head suspension assembly of claim 15 and further comprising another shape memory flexure element extending across the other of said first or second bending portions with the first end of the other flexure element coupled to the suspension arm (proximal) of the other of the first or second bending portions and the second end of the other flexure element coupled to the suspension arm distal of the other of the first or second bending portions.

17. The head suspension assembly of claim 15 wherein the second bending portion is distally spaced from the first bending portion and has a stiffer flexure strength than the first bending portion and the flexure element extends across the second bending portion.

18. The head suspension assembly of claim 15 wherein the first bending portion is (proximally) spaced from the second bending portion and the second bending portion is stiffer than the first bending portion and the flexure element extends across the first bending portion.

19. A head suspension assembly comprising:

a suspension assembly including a cantilevered suspension arm having a head coupled to an extended length of the suspension arm and the suspension arm including a bending portion having a reduced flexure strength; and

bending portion flexure means for adjusting flexure of the suspension arm to adjust one of the preload force or fly height of the slider.

20. The head suspension assembly of claim 19 and comprising a flexible suspension circuit including a plurality of head lead printed on a flexible base and the bending portion flexure means for adjusting flexure is integrated with the flexible suspension circuit.

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